ORDER NO. TD89070349C2

Service Manual

Radio Cassette

RQ-V175

Stereo Radio Cassette Player

Color

(K)····· Black Type

Area

Country Code	Areas	Color
[E]	Continental Europe.	(K)
[EI]	Italy.	

■ SPECIFICATIONS

General:

Power Requirement:	Battery, 3V (Two UM-3, R6/LR6 batteries)
	AC; with optional AC adaptor RP-AC33
Power Output:	40mW (20mWx2)···RMS (max.)
Input:	DC IN; 3V (ϕ3.4)
Output:	Headphones; 35Ω, ϕ3.5
Dimensions:	83.2(W)x116.9(H)x34.3(D)mm
Weight:	Main Unit;
	247g without batteries
	Headphones;
	58g with cord

Badio Section:

Radio Frequency Range:	FM 87.5 - 108MHz
	AM 520 - 1610kHz
Intermediate Frequency:	FM 10.7MHz
	AM 459kHz···[E]only
	455kHz···[EI]only
Sensitivity:	FM 3.6μV/0.5mW output
	(−3dB Limit, Sens)
	AM; 447μV/m/0.1mW output

Tape Deck Section:

Frequency Response:	30 - 18000Hz (Normal, Metal/CrO_2)
Tape Speed:	4.8cm/s
Program Time:	1 hour with C-60 cassette tape
Track System:	4-track, 2-channel, stereo playback

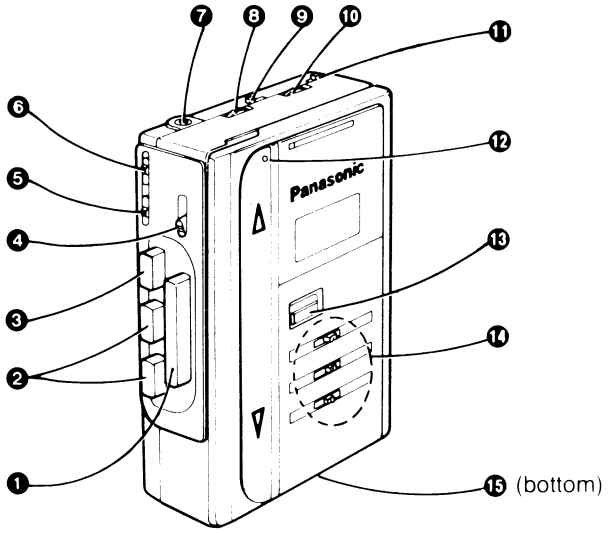
Design and specifications are subject to change without notice.

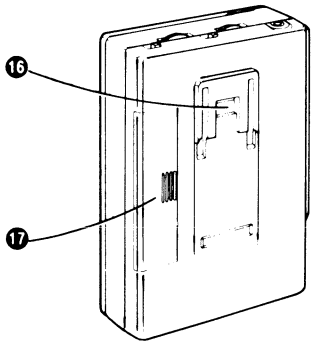
Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

RQ-V175

LOCATION OF CONTROLS AND COMPONENTS





❶ Playback Button (▲▼ PLAY)
❷ Fast Buttons (▲ • ▼ FAST)
❸ Stop Button (■ STOP)
❹ Direction Selector (DIR)
❺ Function Selector (SELECTOR)
❻ Tape Selector (TAPE)
❼ Headphones Jack (,) 35Ω, φ3.5
❽ Volume Control (VOLUME)
❾ Band Selector (BAND)
❿ Tuning Control (TUNING)
⓫ *Dolby Noise Reduction Switch/FM Sensitivity Selector (DOLBY NR/FM SENS)
⓬ FM Stereo Indicator (FM ST)
⓭ XBS Switch (XBS)
⓮ Graphic Equalizer Controls
⓯ DC Input Jack (DC IN 3 V ⊖-•-⊕)
⓰ Clip Receptacle
⓱ Battery Compartment

*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

DISASSEMBLY INSTRUCTIONS

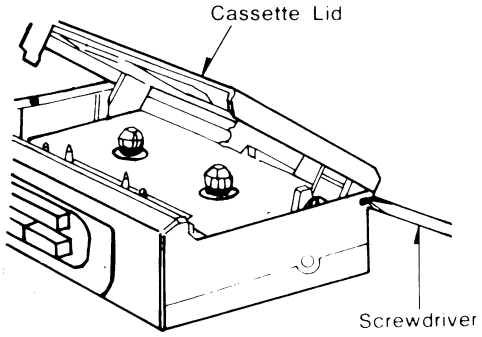


Fig. 1

■Removal the Cassette Lid

1. Open the cassette lid.
2. Remove the cassette lid by pressing its rib with the tip of a(+)screwdriver. (Fig. 1).
3. Pusn the cassette lid in the direction of arrow ①. and disconnect the inside boss. (Fig. 2)
4. Remove the spring (A) X 1. (Fig. 2)

■How to Replace the Cassette Lid Spring

1. Fit Part Ⓐ on the shaft of the front cabinet.
2. Insert part Ⓑ in the hole in the cassette lid.
3. Fit the boss Ⓒ in the cassette lid.

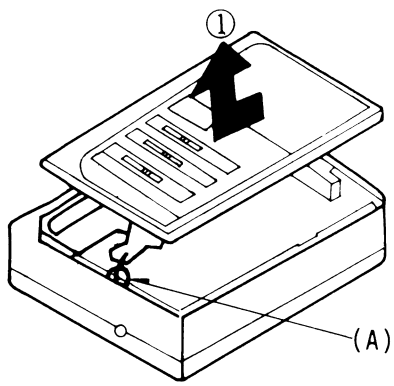


Fig. 2

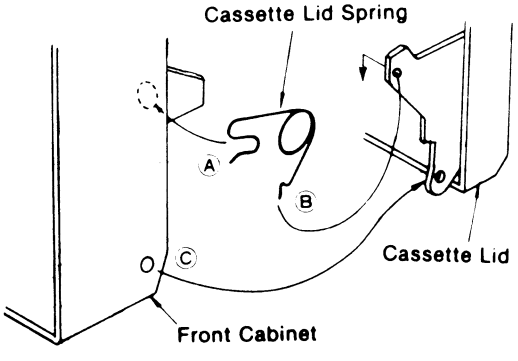


Fig. 3

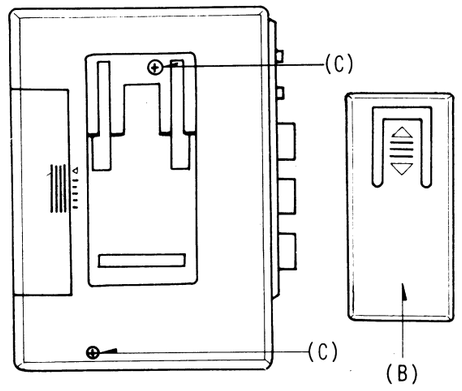


Fig. 4

■Removal of the Rear Cabinet (Fig. 4)

1. Remove the belt clip (B)×1.
2. Remove the screws (C) (2×10)mm×2.

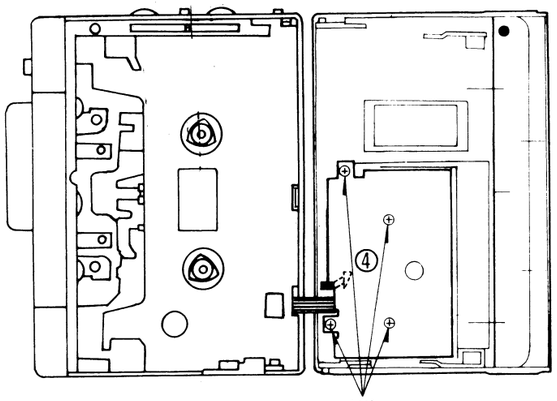


Fig. 6

■Removal of the Cassette Holder & Graphic Equalizer PC board. (Fig. 6).

1. Remove the Screws (K) (1.4×3.5)mm×4.
2. Remove the Graphic Equalizer PC board in the direction of arrow 4.

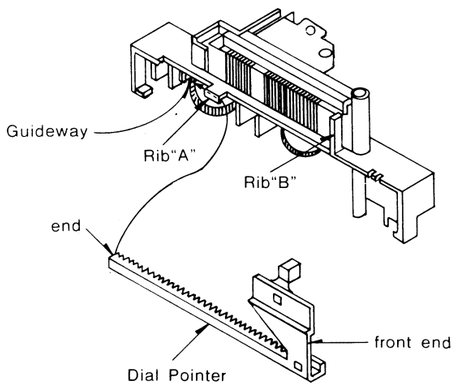


Fig. 8

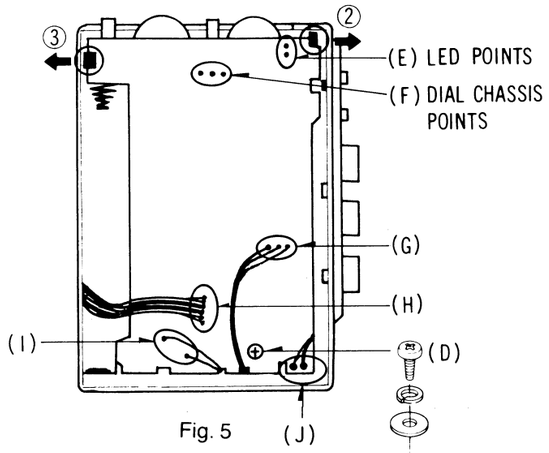


Fig. 5

■Removal of Dial Chassis and Circuit Board (Fig. 5)

1. Remove the screw (D) (1.7×5)×1.
2. Disconnect the two solder (E), (F).
3. Remove the dial chassis in the direction of arrow 2, 3.
4. Remove the solder (G), (H), (I), (J) form flexible PC board.

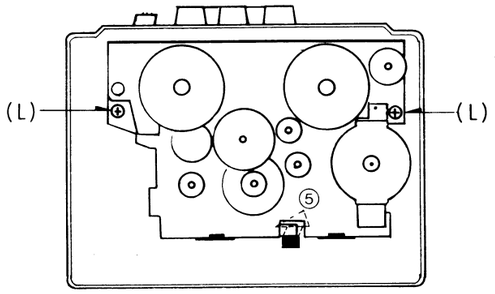


Fig. 7

■Removal of the Front Cabinet and Mechanism (Fig. 7).

1. Remove the screws (L) (1.7×4.5)mm×2.
2. Remove the front cabinet & mechanism in the direction of arrow 5.

■To Removal of Tuning Gear

Note: The pointer have to be inserted first before installing Tuning Knab.

1. Firstable turn the tuning shaft of the variable capacitor counter clockwise, to the end.
2. Insert the end of the pointer into the chassis' pointer guidewag.
3. Then put the center part of pointer under Rib "A"
4. Turn the pointer's front end to contact Rib "B" in which it is the start point (Fig.8).

MEASUREMENTS AND ADJUSTMENTS
<RADIO>

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set function select switch to RADIO. 3. Set band select switch to FM STEREO. 4. Set FM sense select switch to DX.	5. Set XBS selector switch to OFF. 6. Set power source to 3 V DC. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	EQUIPMENT ELECTRONIC AC VOLTMETER or OSCILLOSCOPE	ALIGNMENT POINT (Shown in Fig. 1.)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	459kHz···[E] only 455kHz···[E I] only 30% Mod. at 400 Hz	Point of non-interference. (on/about 600 kHz)	Headphones Jack (35Ω) (Fabricate the plug as shown in Fig. 5. and then connect the lead wires of the plug to the measuring instrument.	T2 (AM IFT)	Adjust for maximum output.

■ AM-RF ALIGNMENT

〃	511 kHz···[E] only 516kHz···[E I] only	Tuning capacitor fully closed.	〃	L4 (AM OSC Coil)	Adjust for maximum output.
〃	1650kHz···[E] only 1635kHz···[E I] only	Tuning capacitor fully open.	〃	CT3 (AM OSC Trimmer)	〃
〃	550kHz	Tune to signal	〃	(*1) L3 (AM ANT Coil)	(*1) Adjust for maximum output. Adjust L3 by moving coil along the ferrite core.
〃	1,500 kHz	〃	〃	CT4 (AM ANT Trimmer)	Adjust for maximum output.
(*1) Fix antenna coil with wax after completing alignment.					

■ FM-IF ALIGNMENT

Connect to test point ▼ through ceramic capacitor (0.001 μF). Negative side to test point ▼.	10.7 MHz (SWEEP)	Point of interference (on/about 90 MHz)	Connect vert. amp. scope to test point ▼. Negative side to test point ▼.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Shown in Fig. 2.)
〃	〃	〃	〃	T3 (FM 2nd IFT)	Adjust for maximum amplitude. (Shown in Fig. 3.)

■ FM-RF ALIGNMENT

Connect to test point ▼ through FM dummy antenna. Negative side to test point ▼.	86.2MHz···[E] only 87.4MHz···[E I] only	Tuning capacitor fully closed.	Headphones Jack (35Ω) (Fabricate the plug as shown in Fig. 5. and then connect the lead wires of the plug to the measuring instrument.	L1 (FM OSC coil)	(*2) Adjust for maximum output.
〃	109.2MHz···[E] only 108.3MHz···[E I] only	Tuning capacitor fully open.	〃	CT1 (FM OSC Trimmer)	〃
〃	90 MHz	Tune to signal	〃	L2 (FM ANT Coil)	〃
〃	106 MHz	〃	〃	CT2 (FM ANT Trimmer)	〃
(*2) Three output responses will be present; proper tuning is the center frequency.					

MEASUREMENTS AND ADJUSTMENTS
<RADIO>

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set function select switch to RADIO. 3. Set band select switch to FM STEREO. 4. Set FM sense select switch to DX.	5. Set XBS selector switch to OFF. 6. Set power source to 3 V DC. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM-IF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	EQUIPMENT ELECTRONIC AC VOLTMETER or OSCILLOSCOPE	ALIGNMENT POINT (Shown in Fig. 1.)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	459kHz···[E] only 455kHz···[E1] only 30% Mod. at 400 Hz	Point of non-interference. (on/about 600 kHz)	Headphones Jack (35Ω) (Fabricate the plug as shown in Fig.5. and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT)	Adjust for maximum output.

■ AM-RF ALIGNMENT

〃	511kHz···[E] only 516kHz···[E1] only	Tuning capacitor fully closed.	〃	L4 (AM OSC Coil)	Adjust for maximum output.
〃	1650kHz···[E] only 1635kHz···[E1] only	Tuning capacitor fully open.	〃	CT3 (AM OSC Trimmer)	〃
〃	550kHz	Tune to signal	〃	(*1) L3 (AM ANT Coil)	(*1) Adjust for maximum output. Adjust L3 by moving coil along the ferrite core.
〃	1,500 kHz	〃	〃	CT4 (AM ANT Trimmer)	Adjust for maximum output.
(*1) Fix antenna coil with wax after completing alignment.					

■ FM-IF ALIGNMENT

Connect to test point ▼10 through ceramic capacitor (0.001 μF). Negative side to test point ▼3.	10.7 MHz (SWEEP)	Point of interference (on/about 90 MHz)	Connect vert. amp. scope to test point ▼4. Negative side to test point ▼5.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Shown in Fig. 2.)
〃	〃	〃	〃	T3 (FM 2nd IFT)	Adjust for maximum amplitude. (Shown in Fig. 3.)

■ FM-RF ALIGNMENT

Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼3.	86.2MHz···[E] only 87.4MHz···[E1] only	Tuning capacitor fully closed.	Headphones Jack (35Ω) (Fabricate the plug as shown in Fig. 5. and then connect the lead wires of the plug to the measuring instrument.)	L1 (FM OSC coil)	(*2) Adjust for maximum output.
〃	109.2MHz···[E] only 108.3MHz···[E1] only	Tuning capacitor fully open.	〃	CT1 (FM OSC Trimmer)	〃
〃	90 MHz	Tune to signal	〃	L2 (FM ANT Coil)	〃
〃	106 MHz	〃	〃	CT2 (FM ANT Trimmer)	〃
(*2) Three output responses will be present; proper tuning is the center frequency.					

■ SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ALIGNMENT POINT	SPECIFICATION	REMARKS
98 MHz, 60 dB (CW) Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼3.	▼5...(+) ▼6...(−)	VR1 (Shown in Fig. 6.)	19 kHz±100 Hz	Adjust VR1, for 19 kHz±100 Hz reading on frequency counter.

NOTES: Make sure the unit is in good working order before attempting measurements and adjustments.
Set the switches and controls to the positions as specified for this procedure.
- Make sure heads are clean.
- Make sure capstan and pinch roller are clean.
- Volume control: Maximum

ITEM	MEASUREMENT & ADJUSTMENT
Ⓐ **Head Azimuth Adjustment** Condition: ● Playback mode Equipment: ● Test tape ···QZZCFM	1. Assemble the mechanism and cabinet parts completely. 2. Play back the head azimuth adjusting tape (8kHz, −20dB···QZZCFM). 3. Adjust the azimuth adjusting screw (Refer to Fig 4) of Playback head to obtain the maximum monitor output. 4. After adjusting, repeat PLAY and STOP some times and confirm that the output variation is less than the specified level (Within 3 dB).
Ⓑ **Tape speed adjustment** Condition: ● Playback mode Equipment: ● DC power supply ● Digital electronic counter ● Test tape ···QZZCWAT.	1. Test equipment connection is shown in fig. 7. 2. Apply 3V to DC IN 3. Connect the headphones output (35Ω) to the counter. 4. Playback the tape speed adjusting tape. (3kHz, −10dB QZZCWAT.) 5. Measure this frequency. **Standard value: 3000 $^{+90}_{-60}$Hz (4.75cm/s)** 6. If measured value is not within standard, adjust as follows. ● **Tape speed adjustment** 1. Adjust tape speed adjustment VR5 so that frequency is 3000 $^{+90}_{-60}$ Hz. 2. Refer to Fig. 6. (Forward & Reverse)

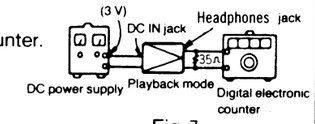
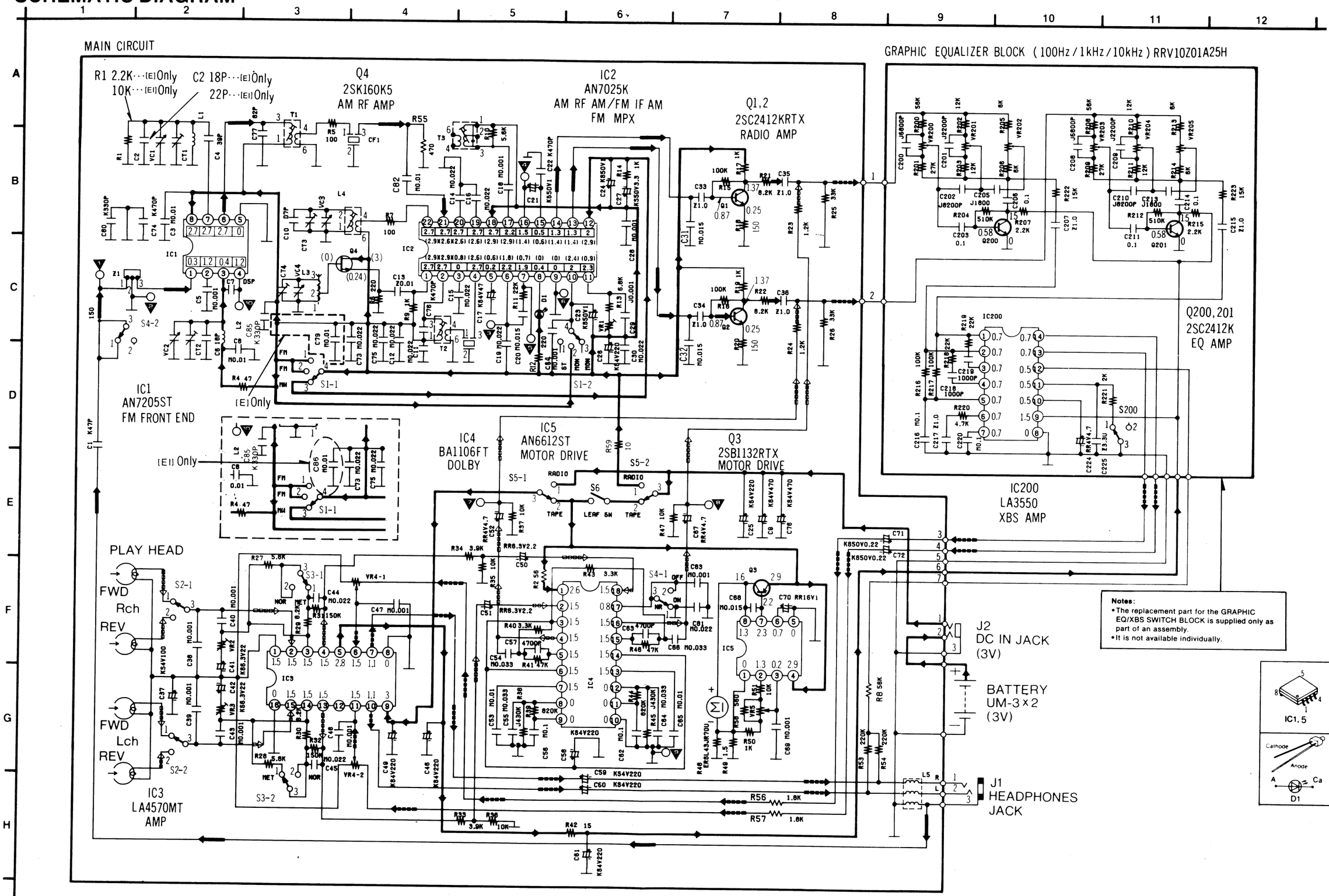


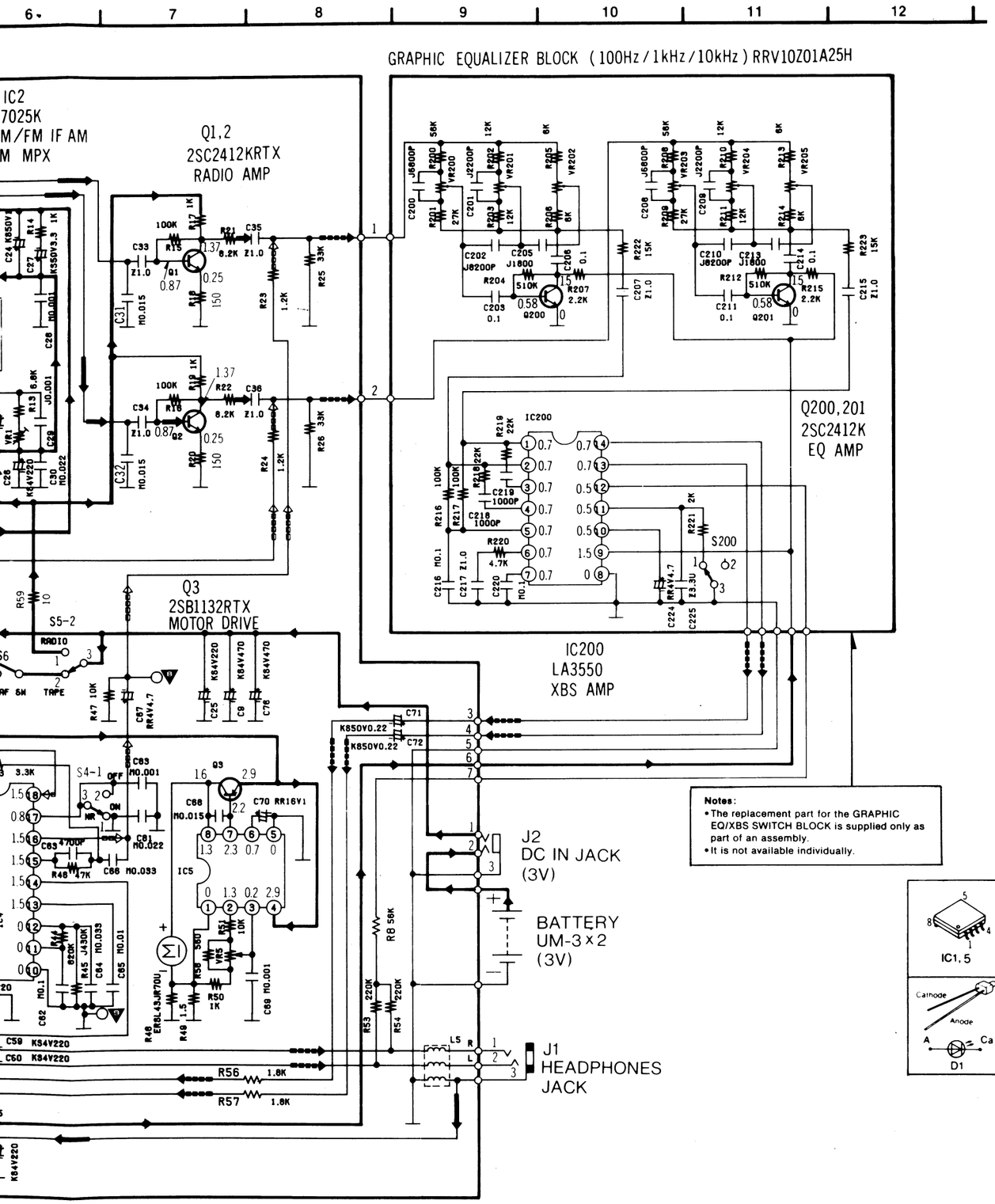
Fig. 7

■ ALIGNMENT INSTRUCTION

ITEM	INPUT	MEASUREMENT POINT	ADJUSTMENT POINT	PROCEDURE
Playback gain	QZZCFM (315 Hz, 0 dB)	▼7...(+) L-CH ▼5...(−) ▼6...(+) R-CH	VR3 (L-CH) VR2 (R-CH) (Refer to Fig.6.)	Playback any part of the tape and adjust VR3 and VR2 so that the playback gain is 70±8mV.

SCHEMATIC DIAGRAM

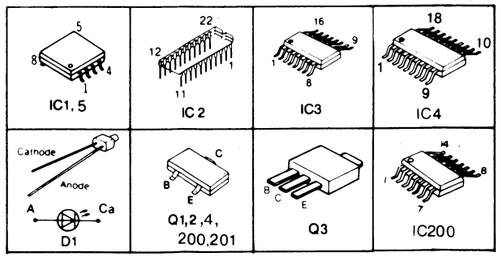




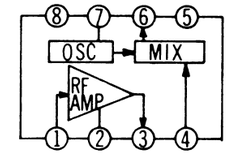
Notes:
- The replacement part for the GRAPHIC EQ/XBS SWITCH BLOCK is supplied only as part of an assembly.
- It is not available individually.

Notes:

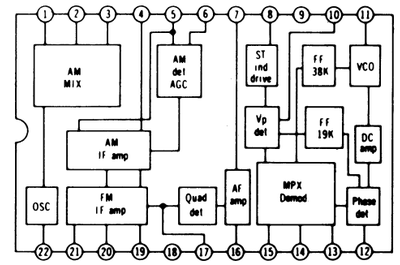
1. S1-1, S1-2: Band select switch in "AM" position. (1···FM STEREO, 2···FM, 3···AM)
2. S2-1, S2-2: FWD/REV select or switch in "FWD" position. (1···FWD, 2···REV)
3. S3-1, S3-2: Tape select switch in "CrO_2/Metal" position. (1···CrO_2/Metal, 2···NORMAL)
4. S4-1, S4-2: Dolby NR/FM sens. switch.
   S4-1; Dolby NR switch in "on" position. (1···ON, 2···OFF)
   S4-2; FM sens. switch in "DX" position. (1···DX, 2···LOCAL)
5. S5-1, S5-2: Function switch in "Tape" position. (1···RADIO, 2···TAPE)
6. S6: Motor switch in "OFF" position.
7. S200: XBS select switch in "OFF" position. (1···OFF, 2···ON)
8. VR1: FM VCO adjustment VR.
9. VR2: Playback gain adjustment VR (Rch).
10. VR3: Playback gain adjustment VR (Lch).
11. VR4-1: Volume control VR (Rch).
    VR4-2: Volume control VR (Lch).
12. VR5: Tape speed adjustment VR.
13. VR200~205: Graphic equalizer VR (100Hz/1kHz/10kHz)
    VR200, 203: 100Hz
    VR201, 204: 1kHz
    VR202, 205: 10kHz
14. The mark (▼) shows test point e.g. ▼ = test point 1.
15. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
    □···FM position, ( )···AM position.
    No mark·····Playback position,
16. Battery current: Volume minimum output (radio) ····· 21mA
    Volume minmum output (tape) ····· 142mA
    Volume Maximum output (radio)····· 26mA
    Volume Maximum output (tape)····· 152mA
    (Radio, 74dB 30% Modulation
    Tape, 315 Hz 0dB tape playback)
17. ▬▶ +B Voltage Line.
    ▭▭▷ Playback Signal.
    ▬▶ FM Signal.
    ▬▭▶ Playback and FM Signal.



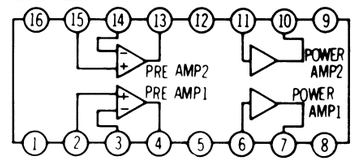
IC1 AN7205ST



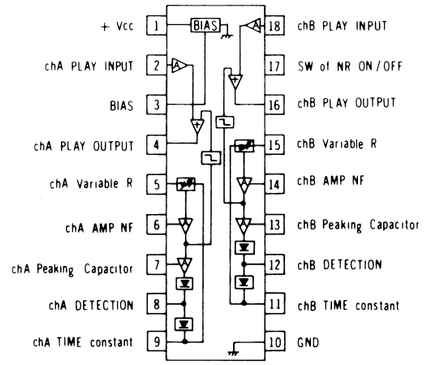
IC2 AN7025K



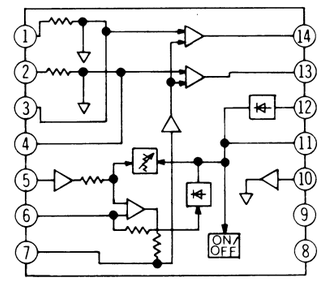
IC3 LA4570MT



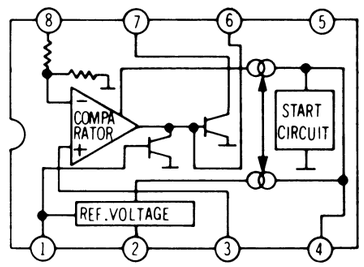
IC4 BA1106FT



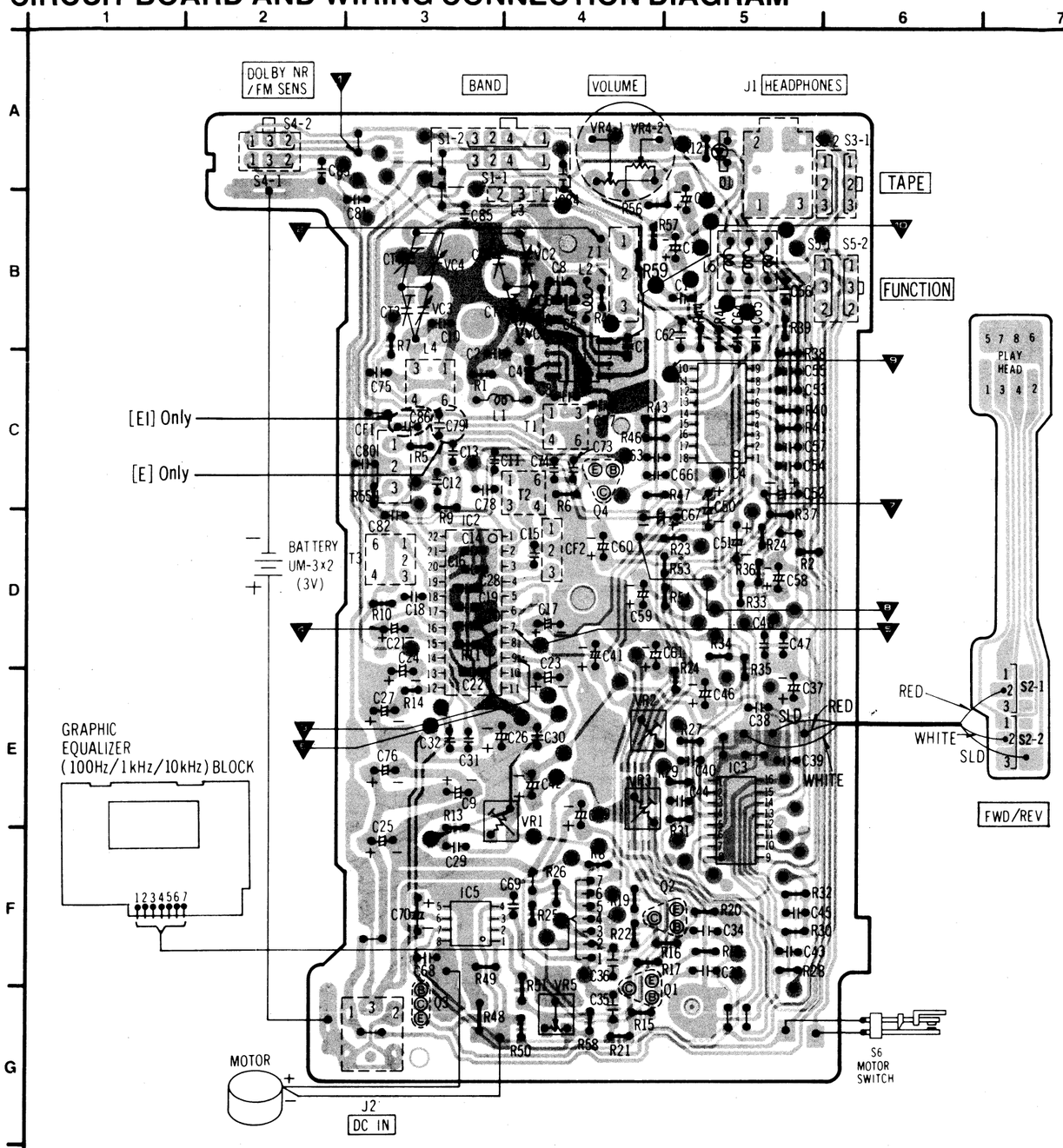
IC200 LA3550



IC5 AN6612ST



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



Notes:

1. The circuit shown in ( ) on the conductor indicates printed circuit on the back side of the printed circuit board.
2. The circuit shown in ( ) on the conductor indicates printed circuit on the front side of the printed circuit board.
3. The symbols (●) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.
4. ●—● : Chip resistor
5. ●—● : Chip jumper

•This circuit board diagram may be modified at any time with the development of new technology.

■ RESISTORS & CAPACITORS PARTS LIST

Numbering System for Resistors.

Example:

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value (100Ω)
ERJ	6G	C	J	2R2
Type	Wattage	Shape	Tolerance	Value (2.2Ω)

Numbering System for Capacitors.

Example:

ECKD	1H	102	Z	F
Type	Voltage	Value (1000pF)	Tolerance	Unique Characteristics
ECEA	50	M	R47	
Type	Voltage	Unique Characteristics	Value (0.47μF)	

Resistor Type	Wattage	Tolerance
ERD: Carbon Resistor	10 : 1/8W	F : ±1%
ERC: Solid Resistor	25 : 1/4W	G : ±2%
ERF: Incombustible Box-Shaped Wire-Wound Resistor	50 : 1/2W	J : ±5%
	18 : 1/8W	K : ±10%
	14 : 1/4W	M : ±20%
	12 : 1/2W	
ERG: Metal Oxide-Film Resistor	1 : 1W	
	2 : 2W	
ERM: Wire-Wound Resistor	3 : 3W	
	S1 : 1/2W	
ERO: Superstable Metal Film Resistor	S2 : 1/4W	
	6G : 1/10W	
	8G : 1/8W	
ERX: Metal-Film Resistor		
RRJ: ERJ: Chip Resistor		

Capacitor Type	Voltage	Tolerance
ECCD: Ceramic Capacitor (Chitacon)	(ECCD, ECKD Type) 1H : 50V DC 2H : 500V DC	K : ±10%
ECKD: Ceramic Capacitor (Chitabari)	(ECFD Type) C : 12V DC D : 25V DC	M : ±20%
ECFD: Semiconductor Ceramic Capacitor	E : 50V DC	Z : +80% −20%
ECE□: Electrolytic Capacitor	(ECQ Type) 05 : 50WV DC 1 : 100WV DC	J : ±5%
ECS□: Tantalum Fixed Electrolytic Capacitor	(ECE, ECS Type) 0G : 4V 0J : 6.3V	G : ±2%
ECQ□: Polystyrene Film Capacitor	1A : 10V 1C : 16V	F : ±1%
	1E : 25V 1V : 35V	C : ±0.25pF
ECQS: Polystyrene Film Capacitor	1H : 50V 1J : 63V	D : ±0.5pF
ECQS: Polypropylene Film Capacito	2A : 100V	F : ±1pF
ECQV: T.F Capacitor		
ECU□: RCU□: Chip Capacitor		
ECBT: Cylindrical Ceramic Capacitor		

※ Capacitance values are in microfarads (μF) unless specified otherwise noted (P = Pico-farads).
※ Resistance values are in ohms (Ω) unless specified noted otherwise (1K = 1,000Ω, 1M = 1,000KΩ).

Ref. No.	Parts No.	Ref. No.	Parts No.
RESISTORS		R35,36,37,47,51	RRJ6GCJ103TE
R1[E]	RRJ6GCJ222TE	R38,45T	RRJ6GCJ434TE
R1[EI]	RRJ6GCJ103TE	R39,44	RRJ6GCJ824TE
R2	RRJ6GCJ560TE	R40,43	RRJ6GCJ332TE
R4	RRJ6GCJ470TE	R41,46	RRJ6GCJ473TE
R5,7	RRJ6GCJ101TE	R42	RRJ6GCJ150TE
R6,12	RRJ6GCJ221TE	R48T	ERSL43JR70U
R8	RRJ6GCJ563TE	R49T	RRJ6GCJ1R5TE
R9,14,17,19,50	RRJ6GCJ102TE	R53,54	RRJ6GCJ224TE
R10,27,28	RRJ6GCJ562TE	R55	RRJ6GCJ471TE
R11	RRJ6GCJ223TE	R56,57	RRJ6GCJ182TE
R13	RRJ6GCJ682TE	R58	RRJ6GCJ561TE
R15,16	RRJ6GCJ104TE	R59	RRJ6GCJ100TE
R18,20	RRJ6GCJ151TE	**CHIP JUMPERS**	
R21,22,	RRJ6GCJ822TE	RJ1-12	RRJ6GCJ000TE
R23,24	RRJ6GCJ122TE		
R25,26	RRJ6GCJ333TE		
R31,32	RRJ6GCJ154TE		
R33,34	RRJ6GCJ392TE		

Ref. No.	Parts No.	Ref. No.	Parts No.
CAPACITOR		C21,23,24	ECEA1HKS010I
C1	RCUV1H470KC	C22,74,78	RCUV1H471KB
C2[E]	RCUV1H180KC	C25,26,46,49,58,59,60,61	ECEA0GKS221I
C2T[EI]	RCUV1H220KP		
C3,8,53,65,82	RCUV1E103MD	C27	ECEA1HKS3R3I
		C29	RCUV1H102JC
C4	RCUV1H390KC	C33,34,35,36	ECUV1C105ZF
C5,18,28,38,39,40,43,47,48,69,83,84	RCUV1H102MD	C37	ECEA0GKS101I
		C41,42	ECEA0JKS220
		C50,51T	ECST0JA225RR
C6	RCUV1H180KC	C52,67T	ECST0GA475RR
C7	RCUV1H050DC		
C9,76T	ECEA0GKS471I	C54,55,64,66	RCUV1E333MD
C10	RCUV1H070DC	C56,62	RCUV1E104MD
		C57,63	RCUV1H472MD
C11,12,14,15,16,19,30,73,75,81,44,45	RCUV1E223MD	C70T	ECST1CA105RR
		C71,72T	ECEA1HKSR47I
		C77	RCUV1H820KC
C13	RCUV1H103ZF	C79[E]	RCUV1E103MD
C17	ECEA0GKS470I	C80,85	RCUV1H331KB
C20,31,32,68	RCUV1E153MD	C86[EI]	RCUV1E103MD

■ REPLACEMENT PARTS LIST

T Indicates parts supplied by TAMACO.

Ref. No.	Parts No.	Parts Name & Description
INTEGRATED CIRCUIT, TRANSISTORS AND DIODES		
IC1T	AN7205ST	I. C. FM RF AMP
IC2T	AN7025K	I. C. AM RF/FM IF AMP
IC3	LA4570MT	I. C. AMP
IC4T	BA1106FT	I. C. Dolby AMP
IC5T	AN6612ST	I. C. Motor Drive
Q1,Q2	2SC2412KRTX	Transistor
Q3	2SB1132RTX	Transistor
Q4	2SK160K5TX	Transistor
D1T	RVDL44HD-1	L. E. D.
COILS AND TRANSFORMERS		
L1T[E]	RLO4Y19	Oscillator Coil FM
L1T[EI]	RLO4N162-0	Oscillator Coil FM
L2	RLO4Y15	Antenna Coil FM
L3T	RLF2N31-0	Ferrit Antenna
L4T	RLO2A25M-M	Oscillator Coil AM
L5T	RLQU100KM-L	Choke Coil FM
T1T	RLI4A45-T	IFT. FM
T2	RLI2A001-T	IFT. AM
T3T	RLI4A34M-M	IFT. FM
VARIABLE RESISTOR		
VR1T	RVNEA14B1W-F	V. R. FM VCO
VR2,3,5T	RVNEA13B1W-F	V. R. playback Gain/Tapy Speed
VR4T	RVV2H3A14M-A	Volume Control

Ref. No.	Parts No.	Parts Name & Description
VARIABLE CAPACITOR		
VC1-4T	RCV4LC4Q3P-M	Tuning Capacitor, W/Trimmer Capacitor (CT11-4)
CERAMIC FILTER		
CF1	RVF107WMZT	Ceramic Filter FM
CF2[E]	RVFPFA459A	Ceramic Filter AM
CF2[EI]	RVFPFA455A	Ceramic Filter AM
COMPONENT COMBINATION		
Z1	RXABPMB8L	Band Pass Filter
SWITCHES		
S1T	RSS3B35YA-Q	Band Switch
S2	RFA90ZA	FWD/REV Switch
S3,S5	RSS2B40YA-Q	Function/Tape Switch
S4	RSS2B54YA-Q	Dolby Switch
S6	RFA89ZA	Motor Switch
JACKS		
J1	RJJD3S5ZA-C	Headphones Jack
J2	RJJ4301	DC IN Jack
GRAPHIC EQUALIZER		
E1T	RRV10Z01A25H	Graphic EQ Ass'y

■ ALIGNMENT POINTS

● Please refer to the Circuit Board and Wiring Connection Diagram to locate the test points.

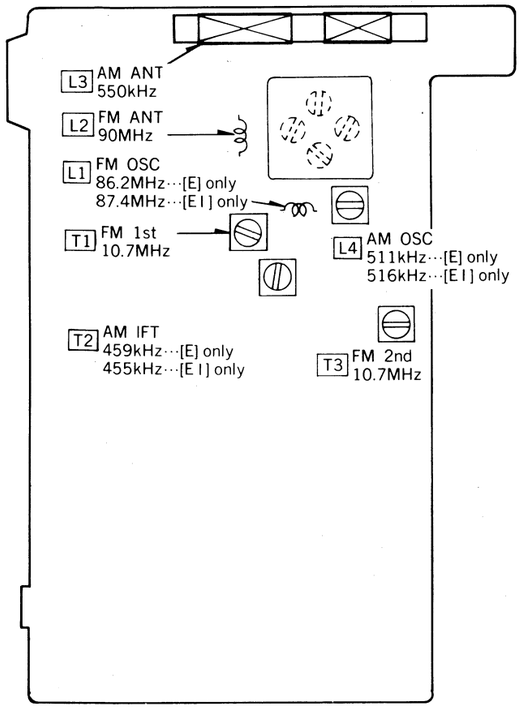

L3 AM ANT 550kHz
L2 FM ANT 90MHz
L1 FM OSC 86.2MHz···[E] only 87.4MHz···[E1] only
T1 FM 1st 10.7MHz
L4 AM OSC 511kHz···[E] only 516kHz···[E1] only
T2 AM IFT 459kHz···[E] only 455kHz···[E1] only
T3 FM 2nd 10.7MHz

Fig. 1

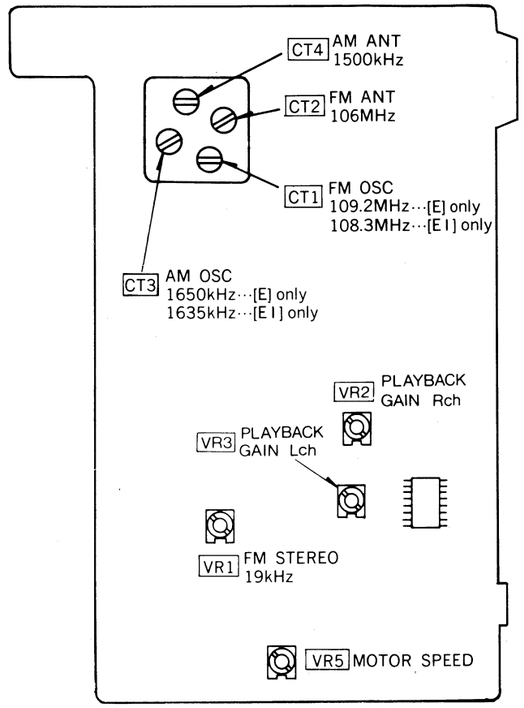

CT4 AM ANT 1500kHz
CT2 FM ANT 106MHz
CT1 FM OSC 109.2MHz···[E] only 108.3MHz···[E1] only
CT3 AM OSC 1650kHz···[E] only 1635kHz···[E1] only
VR2 PLAYBACK GAIN Rch
VR3 PLAYBACK GAIN Lch
VR1 FM STEREO 19kHz
VR5 MOTOR SPEED

Fig. 6

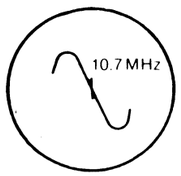


Fig. 2

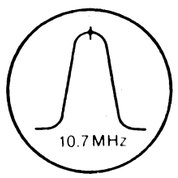


Fig. 3

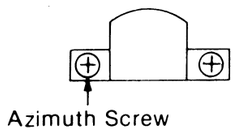


Fig. 4

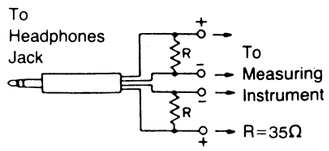
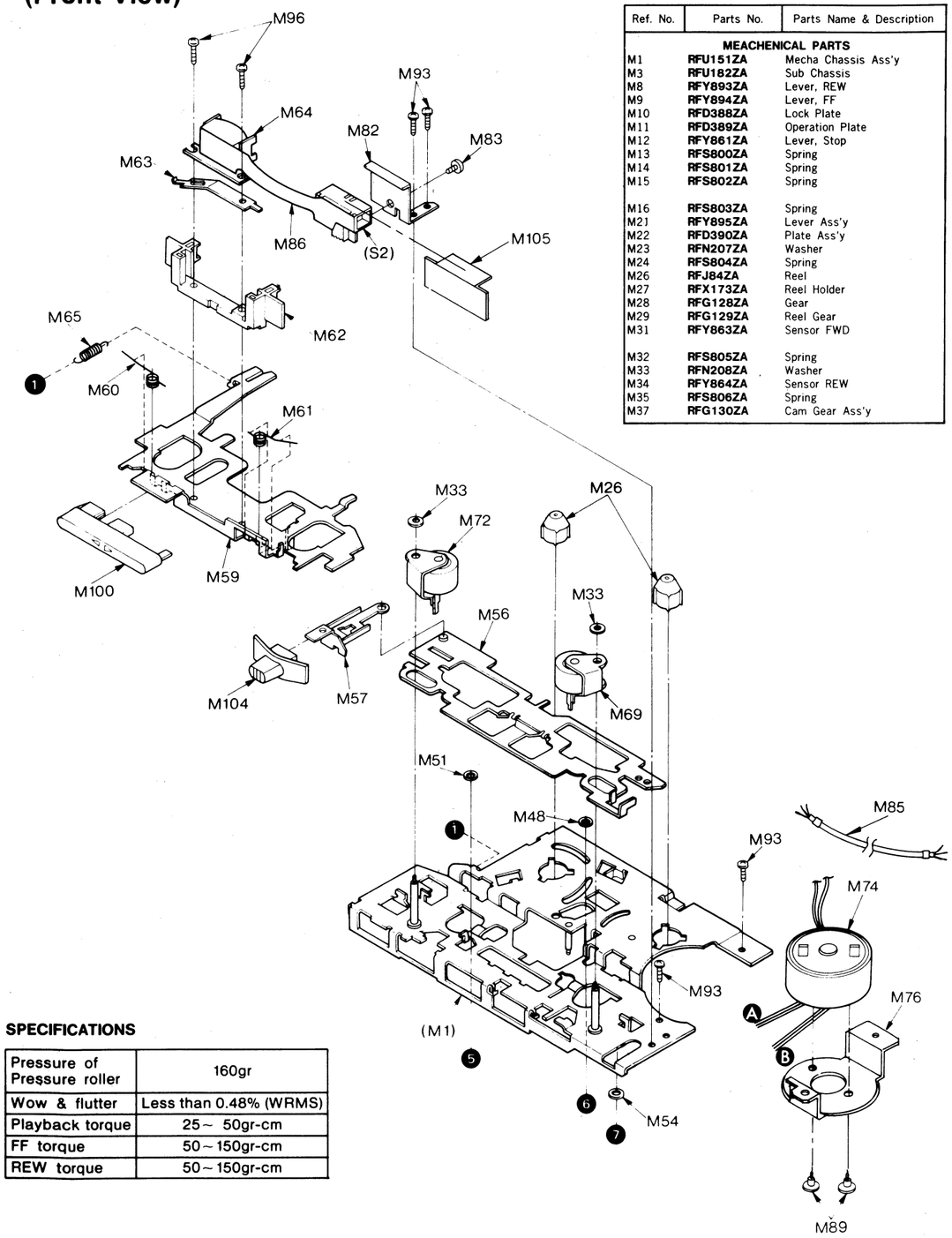


Fig. 5

MECHANISM PARTS LOCATION

(Front View)



■ REPLACEMENT PARTS LIST

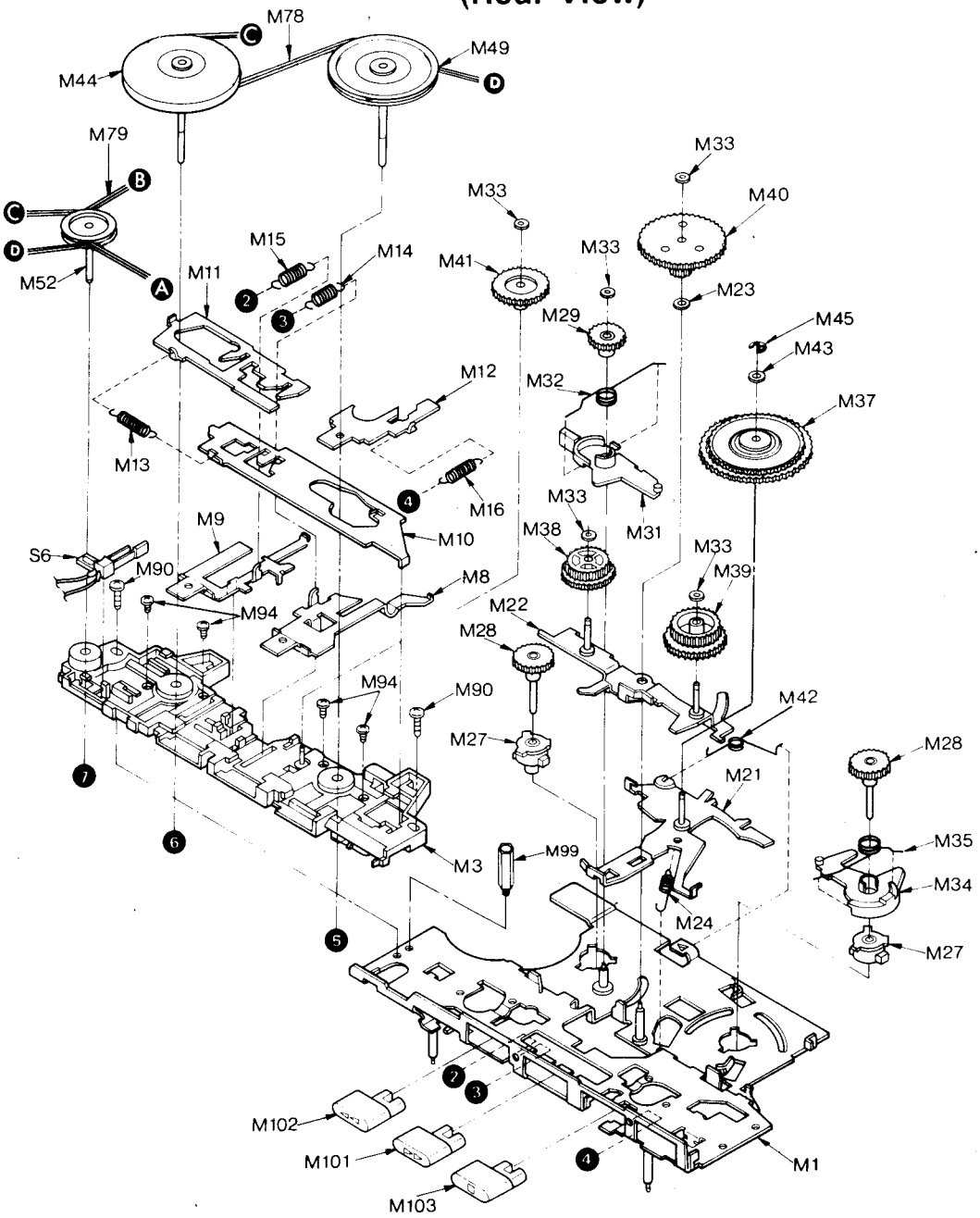
(T) Indicates parts supplied by TAMACO.

Ref. No.	Parts No.	Parts Name & Description
	MEACHENICAL PARTS	
M1	**RFU151ZA**	Mecha Chassis Ass'y
M3	**RFU182ZA**	Sub Chassis
M8	**RFY893ZA**	Lever, REW
M9	**RFY894ZA**	Lever, FF
M10	**RFD388ZA**	Lock Plate
M11	**RFD389ZA**	Operation Plate
M12	**RFY861ZA**	Lever, Stop
M13	**RFS800ZA**	Spring
M14	**RFS801ZA**	Spring
M15	**RFS802ZA**	Spring
M16	**RFS803ZA**	Spring
M21	**RFY895ZA**	Lever Ass'y
M22	**RFD390ZA**	Plate Ass'y
M23	**RFN207ZA**	Washer
M24	**RFS804ZA**	Spring
M26	**RFJ84ZA**	Reel
M27	**RFX173ZA**	Reel Holder
M28	**RFG128ZA**	Gear
M29	**RFG129ZA**	Reel Gear
M31	**RFY863ZA**	Sensor FWD
M32	**RFS805ZA**	Spring
M33	**RFN208ZA**	Washer
M34	**RFY864ZA**	Sensor REW
M35	**RFS806ZA**	Spring
M37	**RFG130ZA**	Cam Gear Ass'y

SPECIFICATIONS

Pressure of Pressure roller	160gr
Wow & flutter	Less than 0.48% (WRMS)
Playback torque	25~ 50gr-cm
FF torque	50~150gr-cm
REW torque	50~150gr-cm

(Rear View)



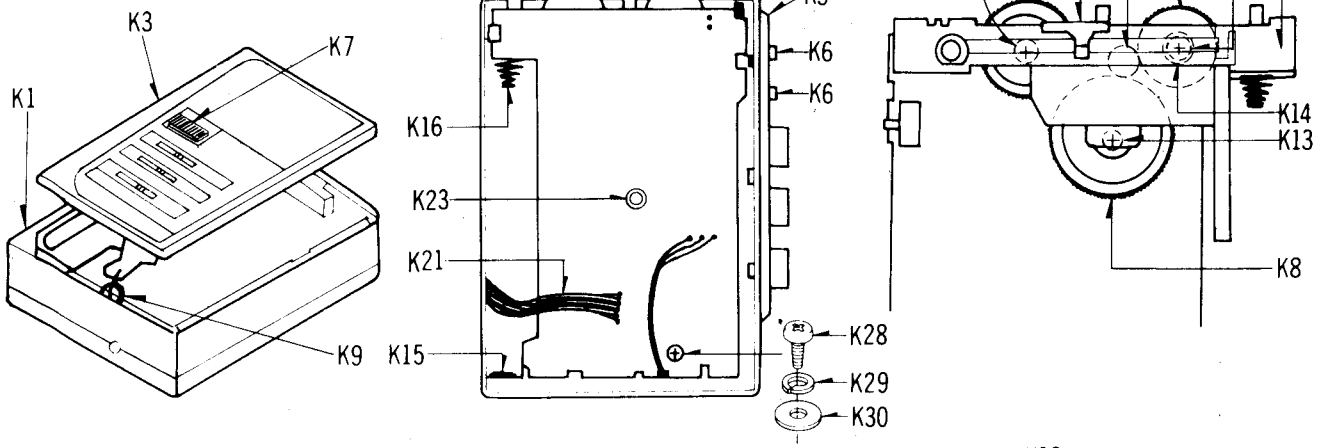
■ REPLACEMENT PARTS LIST

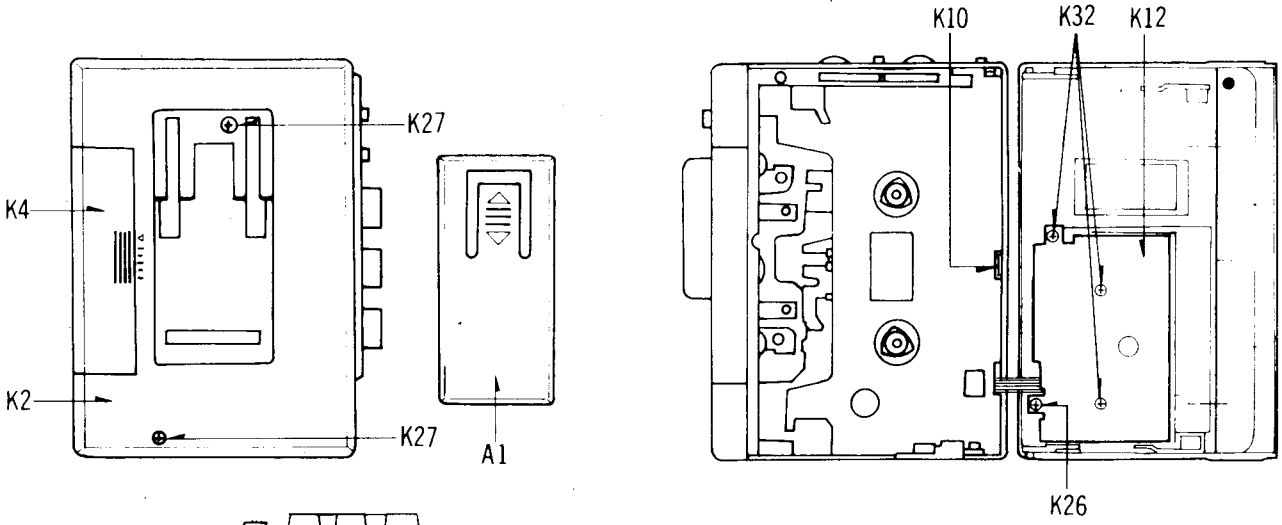
T Indicates parts supplied by TAMACO.

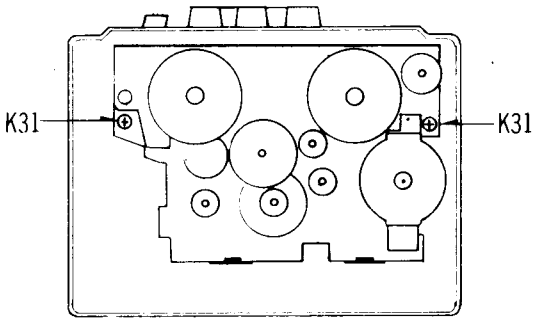
Ref. No.	Parts No.	Parts Name & Description
M38	**RFG131ZA**	Gear, FF
M39	**RFG132ZA**	Gear, REW
M40	**RFG133ZA**	Gear, Center A
M41	**RFG134ZA**	Gear, Center B
M42	**RFS832ZA**	Spring
M43 T	**RFE520ZA**	Washer
M44	**RFF78ZA**	Flywheel F Ass'y
M45 T	**RFE521ZA**	E-Ring
M48	**RFN209ZA**	Washer
M49	**RFF79ZA**	Flywheel R Ass'y
M51	**RFN210ZA**	Washer
M52	**RFQ68ZA**	Pulley, Center
M54	**RFN215ZA**	Washer
M56	**RFD391ZA**	Slide Plate
M57	**RFY865ZA**	Lever Direction
M59	**RFU153ZA**	Head Chassis
M60	**RFS893ZA**	Spring
M61	**RFS894ZA**	Spring
M62	**RFE489ZA**	Tape Guide
M63	**RFS810ZA**	Plate Spring
M64 T	**RJH4C23MZAS**	Head
M65	**RFS811ZA**	Spring
M69	**RFR55ZA**	Pinch Roller F
M72	**RFR56ZA**	Pinch Roller R

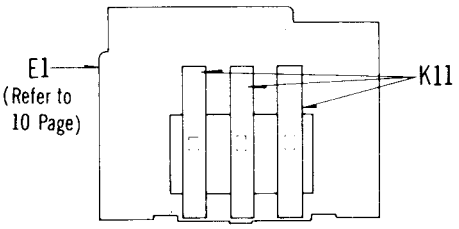
Ref. No.	Part No.	Part Name & Description
M74 T	**RFM169ZA**	Motor Ass'y
M76	**RFD427ZA**	Motor Bracket
M78 T	**RFB108ZA**	Belt
M79	**RFB113ZA**	Belt
M82	**RFD394ZA**	SW Bracket
M83	**RFE490ZA**	Screw
M85 T	**RFE522ZA**	Wire
M86	**RFT28ZA**	F. P. C.
M89	**RFE403ZA**	Screw
M90	**RFE492ZA**	Screw
M93	**RFE493ZA**	Screw
M94	**RFE494ZA**	Screw
M96	**RFE495ZA**	Screw
M99	**RFD428ZA**	Shaft
M100 T	**RBC291TZA**	Button Play
M101 T	**RBC292TZA**	Button REW
M102 T	**RBC293TZA**	Button FF
M103 T	**RBC294TZA**	Button Stop
M104 T	**RBS206TZA0**	Direction Knob
M105 T	**RMC239TZA**	CU Shield

CABINET PARTS LIST









Notes:
- The replacement part for the GRAPHIC EQ/XBS SWITCH BLOCK is supplied only as part of an assembly.
- It is not available individually.

■ REPLACEMENT PARTS LIST

[T] Indicates parts supplied by TAMACO.

Ref. No.	Parts No.	Parts Name & Description
	CABINET PARTS	
K1 [T]	**RKM1142WA**	Front Cabinet
K2 [T]	**RKF972ZA**	Rear Cabinet
K3 [T] [E]	**RYQQV175EKT**	Cassette Lid Ass'y
K3 [T] [EI]	**RYQQV175EIKT**	Cassette Lid Ass'y
K4 [T]	**RKK225TZA**	Battery Cover
K5 [T]	**RKE652ZA**	Side Decoration
K6 [T]	**RBD570ZA**	Function Knob
K7 [T]	**RBD571ZA**	XBS Knob
K8 [T]	**RDG5960ZA**	V. C Gear
K9 [T]	**RUS778ZA**	Cassette Cover Spring
K10 [T]	**RUS231TZB**	Tape Spring
K11 [T]	**RMX212TZA**	EQ SW Cover
K12 [T]	**RME499ZA**	EQ Angle
K13 [T]	**XSH17+3**	Screw
K14 [T]	**XWG22A55F**	Washer
K15 [T]	**RJC3002ZA**	Battery Spring (+)
K16 [T]	**RJC257TZB**	Battery Spring (—)
K17 [T]	**RUA811ZA**	Antenna Holder
K18 [T]	**RBT329ZA**	Knob, Tuning
K19 [T]	**RDG5961ZA**	Middle Gear
K20 [T]	**RDP360ZA**	Pointer
K21 [T]	**WBE7AH**	7P Wire
K22 [T]	**RBT236TZA1**	Knob, Volume
K23 [T]	**RHR3396ZA**	Cabinet Plug
K24 [T]	**XSH14+3**	Screw (V. Knob)
K25 [T]	**XSH2+4.5CFZ**	Screw (T. Knob)
K26 [T]	**XTNR14+2.5CF**	Special Screw (EQ)
K27	**XTNR2+10CFZ**	Tapping Screw (CAB)
K28 [T]	**XSH17+5**	Screw (P.W.B.)
K29 [T]	**XWA2B**	Washer
K30 [T]	**XWE2X4BN**	Washer
K31 [T]	**XTN17+3.5FFZ**	Special Screw (Deck)
K32 [T]	**XTNR14+35CFZ**	Special Screw (EQ)
	ACCESSORY	
A1 [T]	**RKE210TZA**	Belt Clipper
A2 [T]	**RP-HT115PY**	Headphones
A3 [T]	**RQX759TZA**	Instruction Manual
	PACKING MATERIALS	
P1 [T]	**RPK474TZA**	Carton Box
P2 [T]	**RPN1418TZA**	Polylon
P3 [T]	**RPP284TZA**	Polyethylene BAG

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